

Optional		
Safety equipments	Speed limiting during steering	●
	Reversing handle with horn	●
	OPS	●
	Safety protecting function of multiway valve overload	●
	Reverse buzzer	●
	Electronic upper buffering	●
	Central wide-angle rearview mirror	●
	Rearview mirrors on two sides	○
	Front protective net	○
	Seat with belt switch	○
	Dry powder fire extinguisher (0.5kg)	○
	Dry powder fire extinguisher (2kg)	○
	Reverse Chinese voice speaker	○
	Reversing radar (with 4 probes)	○
	Revsing image (1 camear+4 probes)	○
Comfortable equipments	Semi-enclosed seat	●
	USB	●
	Start actovated by steering wheel	●
	Mechanical operation valve	●
	Colorful meter	●
	Full suspension seat	○
	Electromagnetic operation valve	○
	Fan	○
Equipments for driving/ Equipments for windshield	Heater	○
	Panel-mounted cab	○
	Rear windshield	○
	Rear windshield	○
Lights	Top windshield	○
	LED lights	●
	LED flickering warning lights	●
	LED rear working light	○
	Front LED red/blue spotlight	○
	Rear LED red/blue spotlight	○
	Red/blue strip lights on rear and bilateral sides	○
	LED rotating warning light	○
Others	LED rotating and beep warning light	○
	Metric thread	●
	Automatic water adding	●
	Solid tyre	●
	No-marking solid tyre	○
	Sleeve for tilting cylinder	○
	HELI FICS system	○

Note: “●” standard; “○” optional;

CPD15/16/
18/20SQ
A2(P)G3-M/A6G3-S



1.5-2 t
G3 series front-wheel dual drive
three wheel battery powered forklift truck



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* Our products are subject to improvements and changes without notice.



G3
SERIES

HELI



Powerful >>>
>>> **And Flexible**

The truck has high-end
Appearance and
Beautiful colors;
Excellent performance

Comfortable and energy-saving
The truck provides users with the
Best comfortable driving experience.
Advanced energy-saving technology makes
The truck more environment friendly.

G3 series family design elements

Sheet metal stamping type
side cover, side door



Wide view mast
Optimized mast improves lateral stability.

Mobile phone and water cup
holder offer convenient storage.

Optimized mast improves lateral stability.

The steering wheel is sensitive, lightweight, precise,
and power-saving when starting and turning.

The steering wheel is optimized with height reduction
And structure improving;
Adjustable angle; Comfortable operation

Color screen instrument

PES third gear adjustment

P — Powerful
E — Economical
S — Energy-saving

Multi performance modes
satisfy the needs of
various working conditions.



Strong performance:
The truck is equipped with ZF dual motor drive unit.



The truck has small turning radius
and good passability.



The minimum turning
radius is
as low as **1.48m.**

The truck is designed with the concept of stability and reliability, and has undergone multiple rigorous tests and verifications.

The mast is durable and reliable which has undergone 80000 times fatigue test.



Side mounted battery offers more efficient replacement and maintenance.

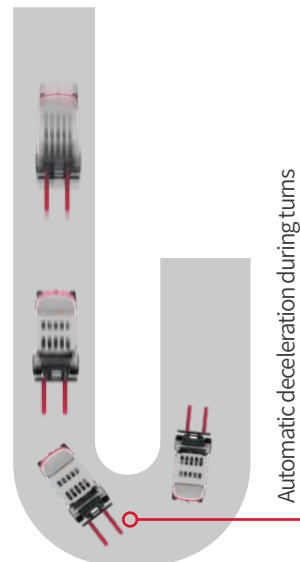
- Dual Core Controller
- Upper and lower mast buffer
- Automatic deceleration during turns
- OPS
- Electric service braking and wet type service braking offer dual protection.
- Intelligent differential speed of left and right motors.
- Reinforced cast steering axle is mature and reliable.
- The optimized design of the mast stress improves overall performance and effectively ensures work safety.



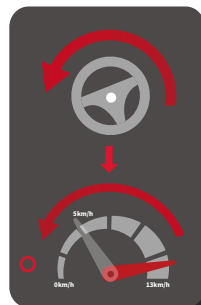
The entire truck and its components meet the latest CE & UKCA requirements.



Ratchet type hand brake is safe and reliable.



Automatic deceleration during turns



OPS (operator presence system)



Unmanned self-locking
Intelligent protection



Travelling



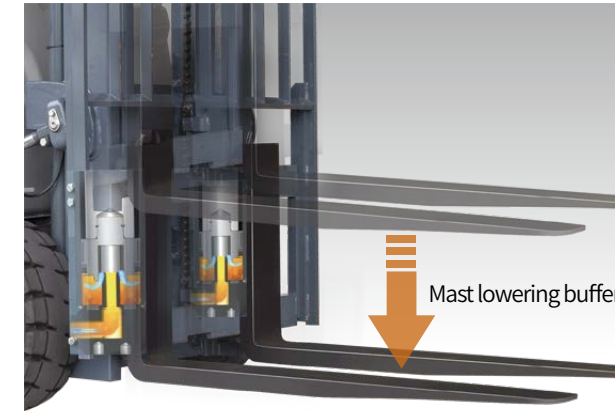
Lifting (lowering)



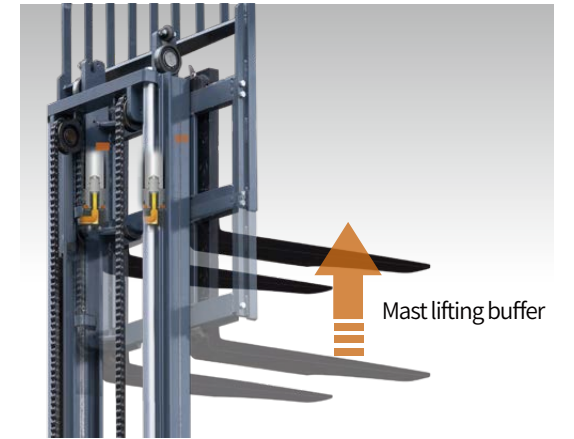
Tilting



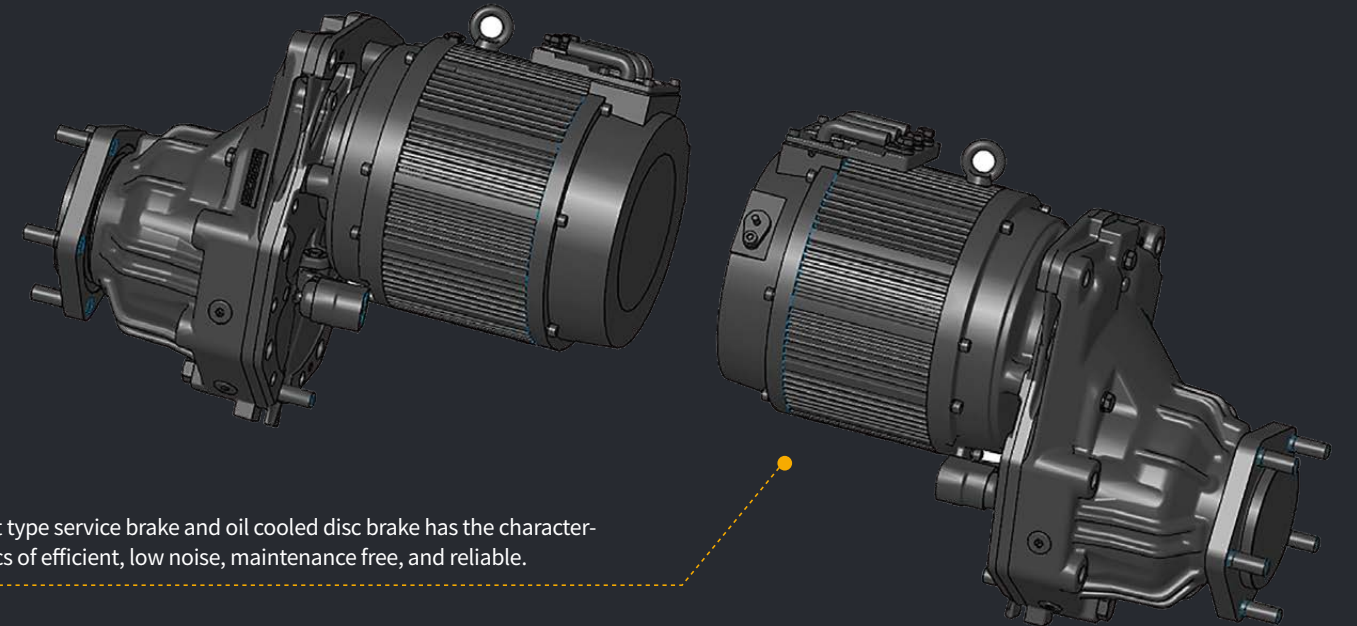
Attachments



Mast lowering buffer



Mast lifting buffer



Wet type service brake and oil cooled disc brake has the characteristics of efficient, low noise, maintenance free, and reliable.

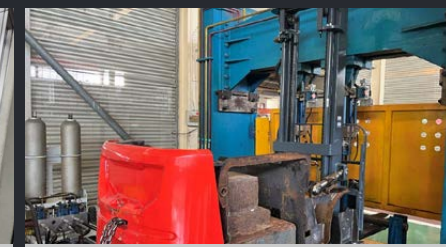
Strict test

Rain test, reliability enhancement test, vibration test, bumps test



Rain test

The whole vehicle is powered on to simulate 15min rain, and the rain intensity is 8mm/min (short-term rainstorm). The vehicle can operate normally without fault.



Vibration test

Conduct vibration frequency testing on the truck to optimize and improve operational comfort.



Reliability enhancement test

The truck undergoes 800 hours of enhancement test (including climbing, rain exposure, bumpy road surfaces, etc.).

Intelligent safety technology:
The truck is designed with intelligent safety as its core and possesses multiple advanced safety technologies.

- Dual Core Controller.
- Upper and lower mast buffering.
- Automatic deceleration during turns.
- OPS.
- Electric service braking and wet type service braking offer dual protection.
- Intelligent differential speed of left and right motors.
- Hydraulic tube burst protection, forward tilt self-locking protection.
- Electrical multiple protection: dual wire system, short circuit protection.
- Overheat protection, low battery protection, sequential protection.
- Parking safety reminder.
- Reminder for slow slope sliding on the slope.
- Reverse horn handle.



Easy Maintenance;
Time-saving, convenient and efficient

Battery side pulling offers easy and fast replacing.



Electric control/main electrical components are located on the balance weight for efficient maintenance.



HELI smart fleet management system

Vehicle positioning	Statistical form
Remote diagnosis	Vehicle management
Remote monitoring	Identification recognition (optional)
Maintenance reminder	Weight management (optional)
Battery management	Collision management (optional)



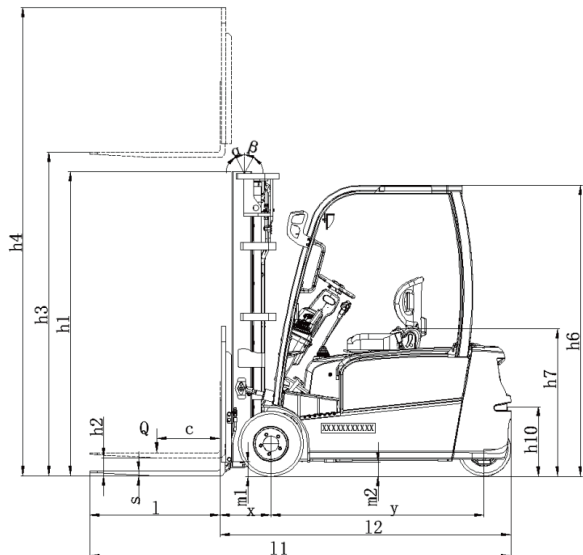
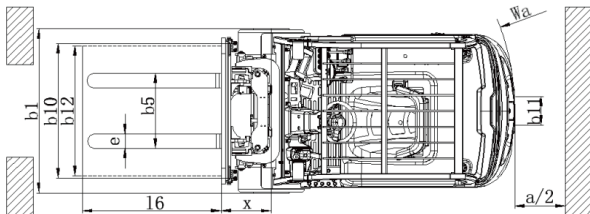
The hydraulic oil tank is located on the left side for easy filling and checking.



Maintenance-free steering axle

Manufacturer and Technical Data										
Characteristics										
1.01 Manufacturer			HELI							
1.02 Model			CPD15SQ	CPD15SQ	CPD16SQ	CPD16SQ	CPD18SQ	CPD18SQ	CPD20SQ	CPD20SQ
1.03 Configuration number			A2(P)G3-M	A6G3-S	A2(P)G3-M	A6G3-S	A2(P)G3-M	A6G3-S	A2(P)G3-M	A6G3-S
1.04 Rated capacity	Q	kg	1500	1500	1600	1600	1800	1800	2000	2000
1.05 Load center distance	c	mm	500							
1.06 Power mode			Battery							
1.07 Driving mode			seated							
1.08 Front overhang	x	mm	367	367	367	367	367	367	372	372
1.09 Wheelbase	y	mm	1292	1292	1400	1400	1400	1400	1508	1508
Weight										
2.01 Total weight (with/without battery)		kg	3025/2330	2960/2330	3214/2358	3138/2358	3321/2465	3245/2465	3407/2396	3316/2396
2.02 Axle load (laden,front/rear)		kg	3920/605	3870/590	4180/634	4114/624	4500/621	4434/611	4790/617	4710/606
2.03 Axle load (unladen,front/rear)		kg	1420/1605	1390/1570	1600/1614	1564/1574	1600/1721	1564/1681	1640/1767	1595/1721
Tyres										
3.01 Tyre type			Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
3.02 Tyre size,front			18×7-8	18×7-8	18×7-8	18×7-8	200/50-10	200/50-10	200/50-10	200/50-10
3.03 Tyre size,rear			140/55-9							
3.04 Wheels,number front/rear (x=driven wheels)			2×/2							
3.05 Tread, front	b10	mm	920	920	920	920	930	930	930	930
3.06 Tread, rear	b11	mm	205							
Dimensions										
4.01 Mast tilt angle (forward/backward)	α/β	°	5/7							
4.02 Height (mast lowered)	h1	mm	2015	2015	2015	2015	2015	2015	2015	2015
4.03 Free lifting height	h2	mm	85	85	85	85	85	85	90	90
4.04 Lifting height (standard)	h3	mm	3000							
4.05 Max. height,extended (with backrest)	h4	mm	4038							
4.06 Height of overhead guard	h6	mm	2040							
4.07 Seat height relating to SIP (to ground)	h7	mm	1042							
4.08 Towing coupling height	h10	mm	482							
4.09 Overall length (with fork)	l1	mm	2762	2762	2870	2870	2870	2870	2983	2983
4.10 Overall length (without fork)	l2	mm	1842	1842	1950	1950	1950	1950	2063	2063
4.11 Overall width	b1	mm	1076	1076	1076	1076	1120	1120	1120	1120
4.12 Fork size:thickness x width x length	s/e/l	mm	35×100×920	35×100×920	35×100×920	35×100×920	35×100×920	35×100×920	40×122×920	40×122×920
4.13 Fork carriage,according to ISO2328			2A							
4.14 Distance across fork-arms, Max./Min.	b5	mm	960/200	960/200	960/200	960/200	960/200	960/200	1030/200	1030/200
4.15 Ground clearance (at mast)	m1	mm	85							
4.16 Ground clearance (center of wheelbase)	m2	mm	100							
4.17 Right angle stacking aisle width for pallet1000 x1200mm crossways	Ast	mm	3163	3163	3271	3271	3271	3271	3389	3389
4.18 Right angle stacking aisle width for pallet800 x1200mm lengthways	Ast	mm	3286	3286	3394	3394	3394	3394	3513	3513
4.19 Min. outside turning radius	Wa	mm	1477	1477	1585	1585	1585	1585	1699	1699
Performance Data										
5.01 Travel speed (laden/unladen)		km/h	16/16	13/14	16/16	13/14	16/16	13/14	16/16	13/14
5.02 Lift speed (laden/unladen)		mm/s	380/600	350/450	430/600	330/450	430/600	330/450	400/600	300/450
5.03 Lowering speed (laden/unladen)		mm/s	470/500							
5.04 Max.drawbar pull (laden)	N		14000	13000	15000	13300	16000	13500	16800	13600
5.05 Max.gradeability (laden/unladen)	%		20/20	15/17	20/20	15/17	20/20	15/17	20/20	15/17
5.06 Acceleration time(10 m)(laden/unladen)	s		5.4/5	5.5/5.2	5.4/5	5.5/5.2	5.4/5	5.5/5.2	5.4/5	5.5/5.2
Battery										
6.01 Battery voltage/Capacity(K5)		V/Ah	48/440	48/400	48/600	48/550	48/600	48/550	48/720	48/660
6.02 Battery weight		kg	695	630	856	780	856	780	1011	920
6.03 Battery to DIN 43531/35/36/A/B/C			43531A							
Motor and controller										
7.01 Driving motor powering (S2-60min)		kW	5.4×2	5.4×2	5.4×2	5.4×2	5.4×2	5.4×2	5.4×2	5.4×2
7.02 Lifting motor powering (S3-15%)		kW	15	11	15	11	15	11	15	11
7.03 Driving motor controlling mode			MOSFET/AC							
7.04 Lifting motor controlling mode			MOSFET/AC							
Addition data										
8.01 Service brake/Parking brake			Hydraulic/mechanical							
8.02 Relief pressure		Mpa	17.5	17.5	17.5	17.5	22.5	22.5	22.5	22.5

NOTE: "P" Battery side loading.

Ast: Right angle stacking aisle width
a: Clearance 200mm

1.5t/1.6t/1.8t/2.0t Wide View Mast Parameters																			
Mast type	Mast Model	Max lifting height (mm)	Load capacity (load center 500mm)(kg)				Height (mast lowered) (mm)	Free lift (with backrest) (mm)			Service weight (kg)								Mast tilting angle (°) α/β
			1.5t	1.6t	1.8t	2t		1.5-2t	1.5-1.8t	2t	1.5t-M	1.5t-S	1.6t-M	1.6t-S	1.8t-M	1.8t-S	2t-M	2t-S	
WIDE VIEW 2-STAGE STANDARD MAST	M200	2000	1500	1600	1800	2000	1515	85	90	2959	2894	3148	3072	3255	3179	3341	3250	5/7	
	M250	2500	1500	1600	1800	2000	1765	85	90	2992	2927	3181	3105	3288	3212	3374	3283	5/7	
	M300	3000	1500	1600	1800	2000	2015	85	90	3025	2960	3214	3138	3321	3245	3407	3316	5/7	
	M330	3300	1500	1600	1800	2000	2165	85	90	3045	2980	3234	3158	3341	3265	3427	3336	5/7	
	M350	3500	1500	1600	1800	2000	2265	85	90	3058	2993	3247	3171	3354	3278	3440	3349	5/7	
	M370	3700	1500	1600	1800	2000	2365	85	90	3072	3007	3261	3185	3368	3292	3454	3363	5/7	
	M400	4000	1500	1600	1800	2000	2565	85	90	3123	3058	3312	3236	3419	3343	3505	3414	3/5	
	M425	4250	1500	1600	1750	1900	2690	85	90	3140	3075	3329	3253	3436	3360	3522	3431	3/5	
	M450	4500	1400	1500	1700	1850	2815	85	90	3156	3091	3345	3269	3452	3376	3538	3447	3/5	
	M500	5000	1300	1400	1600	1700	3065	85	90	3215	3150	3404	3328	3511	3435	3597	3506	3/3	
WIDE VIEW FULL FREE 2-STAGE MAST	ZM200	2000	1500	1600	1800	2000	1515	510	515	2953	2888	3142	3066	3249	3173	3335	3244	5/7	
	ZM250	2500	1500	1600	1800	2000	1765	760	765	2984	2919	3173	3097	3280	3204	3366	3275	5/7	
	ZM300	3000	1500	1600	1800	2000	2015	1010	1015	3015	2950	3204	3128	3311	3235	3397	3306	5/7	
	ZM330	3300	1500	1600	1800	2000	2165	1160	1165	3033	2968	3222	3146	3329	3253	3415	3324	5/7	
	ZM350	3500	1500	1600	1800	2000	2265	1260	1265	3045	2980	3234	3158	3341	3265	3427	3336	5/7	
	ZM370	3700	1500	1600	1800	2000	2365	1360	1365	3057	2992	3246	3170	3353	3277	3439	3348	5/7	
	ZM400	4000	1500	1600	1800	2000	2565	1560	1565	3107	3042	3296	3220	3403	3327	3489	3398	3/5	
	ZSM360	3600	1500	1600	1800	2000	1780	781	786	3134	3069	3323	3247	3430	3354	3516	3425	3/5	
	ZSM400	4000	1500	1600	1800	2000	1915	916	921	3163	3098	3352	3276	3459	3383	3545	3454	3/5	
	ZSM435	4350	1400	1500	1700	1900	2030	1031	1036	3183	3118	3372	3296	3479	3403	3565	3474	3/5	
WIDE VIEW FULL FREE 3-STAGE MAST	ZSM450	4500	1400	1500	1700	1850	2080	1081	1086	3193	3128	3382	3306	3489	3413	3575	3484	3/5	
	ZSM470	4700	1350	1450	1650	1750	2150	1151	1156	3207	3142	3396	3320	3503	3427	3589	3498	3/5	
	ZSM480	4800	1350	1450	1650	1750	2180	1181	1186	3213	3148	3402	3326	3509	3433	3595	3504	3/5	
	ZSM500	5000	1200	1300	1600	1700	2280	1281	1286	3233	3168	3422	3346	3529	3453	3615	3524	3/3	
	ZSM540	5400	1050	1150	1250	1400	2415	1416	1421	3262	3197	3451	3375	3558	3482	3644	3553	3/3	
	ZSM600	6000	800	900	1000	1100	2630	1631	1636	3347	3282	3536	3460	3643	3567	3729	3638	3/3	
	ZSM650	6500	700	800	900	1000	2820	1821	1826	3381	3316	3570	3494	3677	3601	3763	3672	3/3	
	ZFM560	5600	850	950	1050	1150	1990	940	940	3337	3272	3526	3450	3633	3557	3719	3628	3/3	
	ZFM610	6100	750	850	950	1050	2110	1060	1060	3367	3302	3556	3480	3663	3587	3749	3658	3/3	
	ZFM650	6500	650	750	850	950	2230	1180	1180	3397	3332	3586	3510	3693	3617	3779	3688	3/3	